



Designing Responsive IBM i Web Applications

Greg Patterson

May 14, 2020

Agenda

- What is Responsive Web Design?
 - ▶ Live Demo
 - ▶ Examples
- Introduction to Bootstrap
- Introduction to IDEs



What is Responsive Web Design?



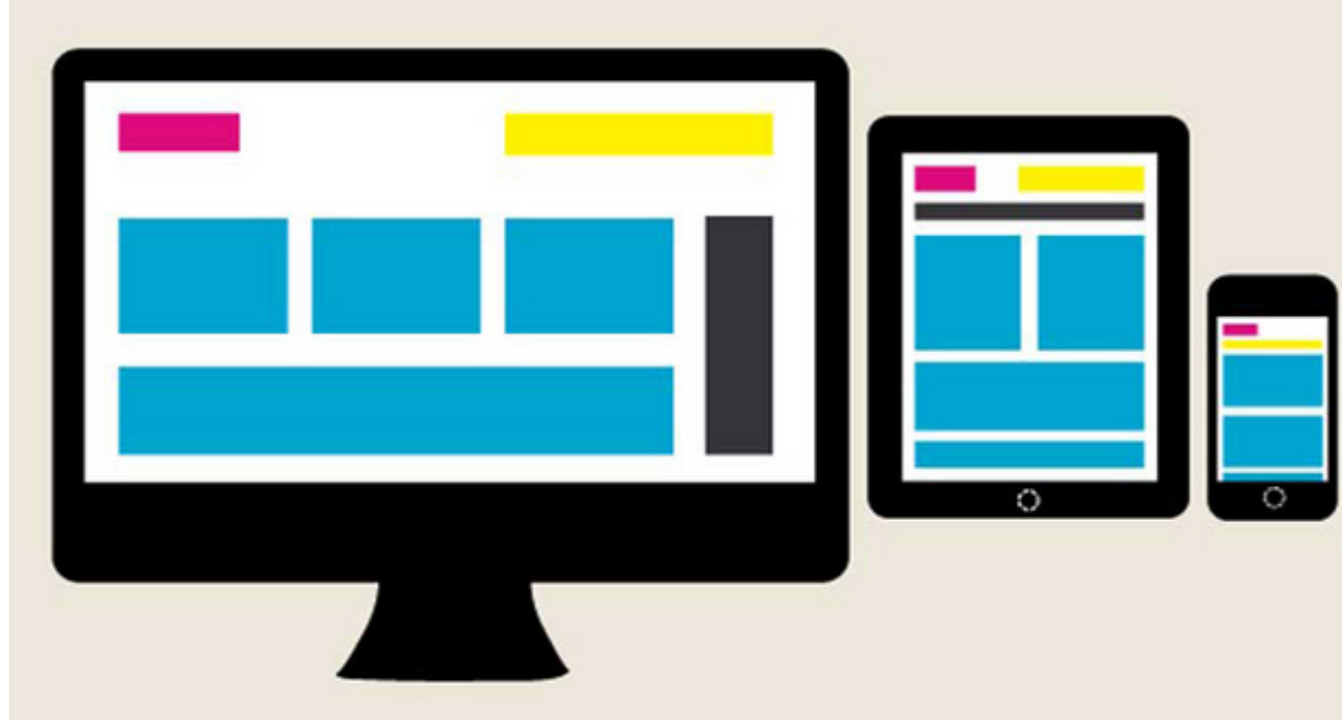
Responsive Web Design



Make web pages look good on all devices

What is Responsive Web Design

- Content responds to device size
- Uses CSS and HTML
- Hide, move, stack, resize
- Grid Layout
- One code base



Live Examples



Wenger®

Your Performance Partner

Browser Development Tools & Mobile Emulators


- Browser Development Tools
 - ▶ Chrome, Firefox, Edge (Chromium), Safari etc.
- Mobile emulators
 - ▶ iOS
 - ▶ Android

Media Queries

- Dimensions
 - 480px
 - 768px
 - 992px
 - 1200px
- Orientation
- Cross Browser and OS

B2B eCommerce on IBM i

Check out our Bangers Bargains! Expires in 26 days 1 hour 41 min



Your Shooting Sports Source

1 pending notifications

Logged in as MARKS OUTDOOR SPORTS

All Product Types

Search

Products

Dashboard

Watched Products

Saved Carts

Reports

(6)

Saved Carts

Cart Type

Order Type

Cart Name

All

All

Cart Name

Search

Clear

	Name	Cart Type	Order Type	Date
	long guns	Re-order Template	Regular	01/27/2016
	smaller guns	Re-order Template	Handgun	01/27/2016

<<

<

1

>

>>

Carrier

Cart Type

All

Order Type

All

Cart Name

Cart Name


Search

Clear

	Name	Cart Type	Order Type	Date
	long guns	Re-order Template	Regular	01/27/2016

B2B on IBM i

Check out our Bangers Bargains! Expires in 351 days 10 hours 6 min



2 pending notifications

My Account

Logout

All Product Types

Search

Products

Dashboard

Saved Products

Saved Carts

Reports

Serial Number Report

Serial Number

Invoice Number

Manufacturer

From Date

To Date

Serial Number

Invoice Number

All

Serial Number	Description	Manufacturer	Invoice Number
1540-17127	LCR-38 38Sp+P1.87"BFSw/GreenCTLaser TALO	Ruger/Sturm & Company	127378
BBHL950	17 Gen 4 9mm 4.5" B FS Gen 4 3/17	Glock	127378
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CZK7593	617 22LR 4" S AS 10rd	Smith & Wesson	127378

Serial Number Report

Export

Serial Number

Invoice Number

Manufacturer

From Date

To Date

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Invoice Number

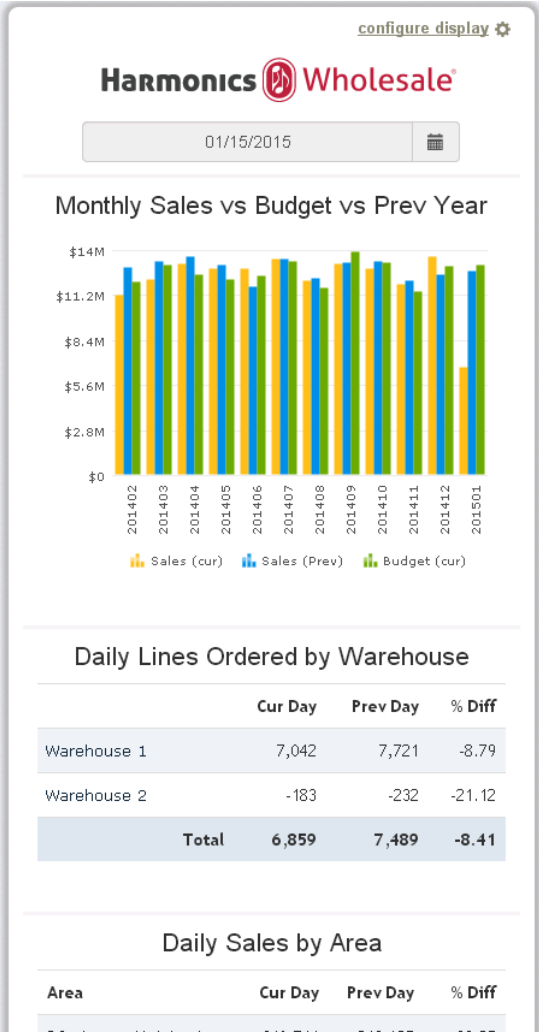
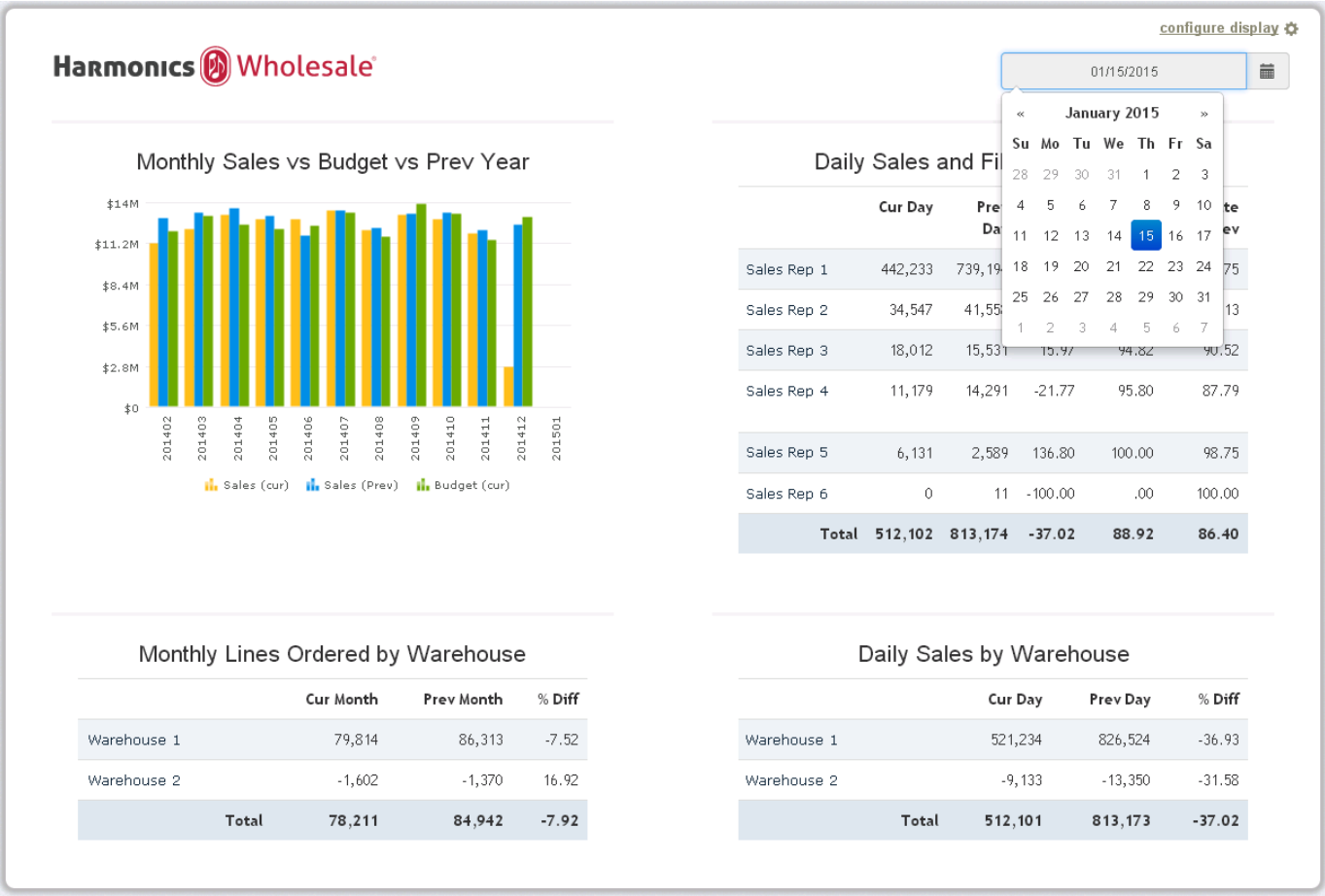
All

Search

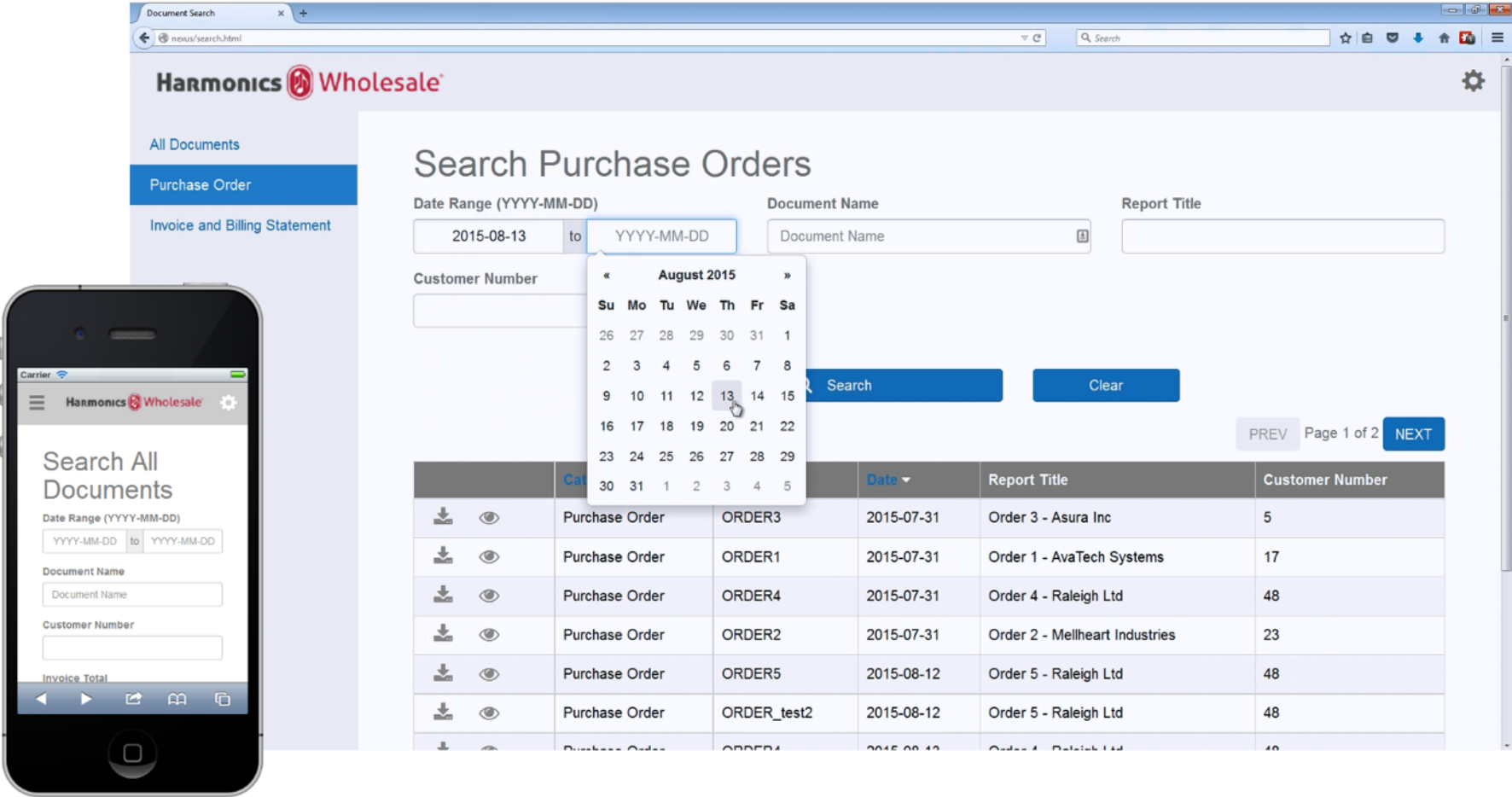
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Serial Number	Description	Manufacturer	Invoice Number	Invoice Date
1540-17127	LCR-38 38Sp+P1.87"BFSw/GreenCTLaser TALO	Ruger/Sturm & Company	1273783	04/11/2016
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IBM i Dashboard



IBM i Document Portal



Alternatives?

- Desktop only
- Mobile only
- Separate
- Native Mobile App
- Article on Responsive Design on Smashing Magazine from 2011:
 - <https://www.smashingmagazine.com/2011/01/guidelines-for-responsive-web-design/>

Introduction to Bootstrap



What is Bootstrap

- Popular HTML & CSS design framework for developing responsive web applications
 - Forms, buttons, tables, menus, modal windows and more via JavaScript plugins
- Build sleek sites quickly and easily
- Single code base
- Free Open Source
- Integrate with other frameworks

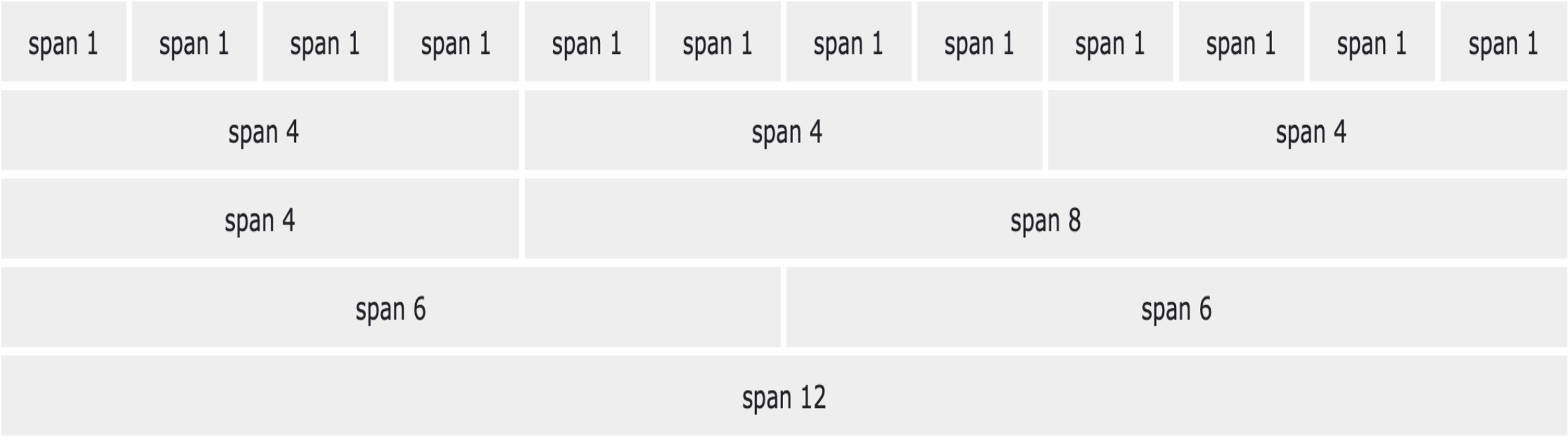


Bootstrap 3 vs. 4

- Bootstrap 4 is the latest version
 - ▶ New components, faster stylesheets, more responsive options
 - ▶ All stable browsers except IE9 or lower
- Bootstrap 3 is the most stable, and still maintained
 - ▶ Critical bug-fixes & documentation only
 - ▶ IE8-9 supported

Grid Layout

- Up to 12 columns per page (can be combined)
- Grid is responsive, automatically re-arranging with screen size



Media Queries

- xs - 480px
- s - 768px
- m - 992px
- l - 1200px
- Class = .hidden-xs

CSS Styles and Components

Basic **Primary** **Secondary** **Success** **Info** **Warning** **Danger** **Dark** **Light** [Link](#)

Success! This alert box indicates a successful or positive action.	×
Info! This alert box indicates a neutral informative change or action.	×
Warning! This alert box indicates a warning that might need attention.	×
Danger! This alert box indicates a dangerous or potentially negative action.	×
Primary! This alert box indicates an important action.	×
Secondary! This alert box indicates a less important action.	×
Dark! Dark grey alert box.	×
Light! Light grey alert box.	×

CSS Styles and Components

Bootstrap Tutorial

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile-first projects on the web.

Apple Samsung Sony

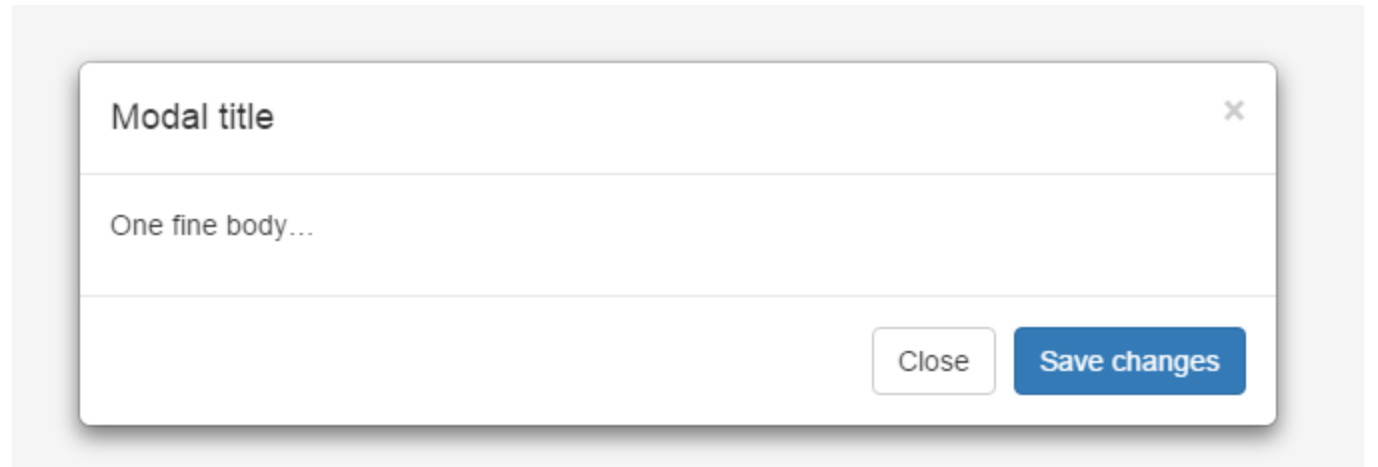
Previous123Next

Logo Link Link Disabled

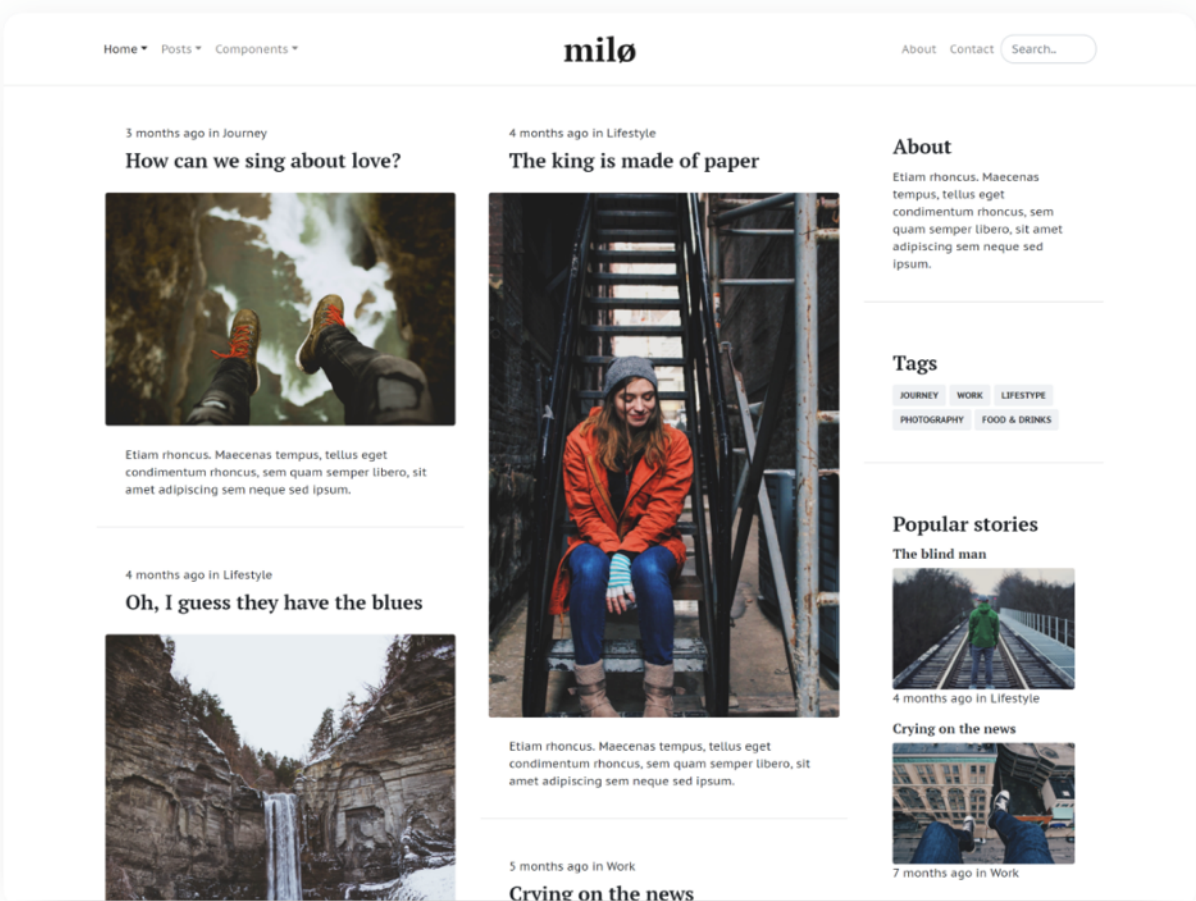
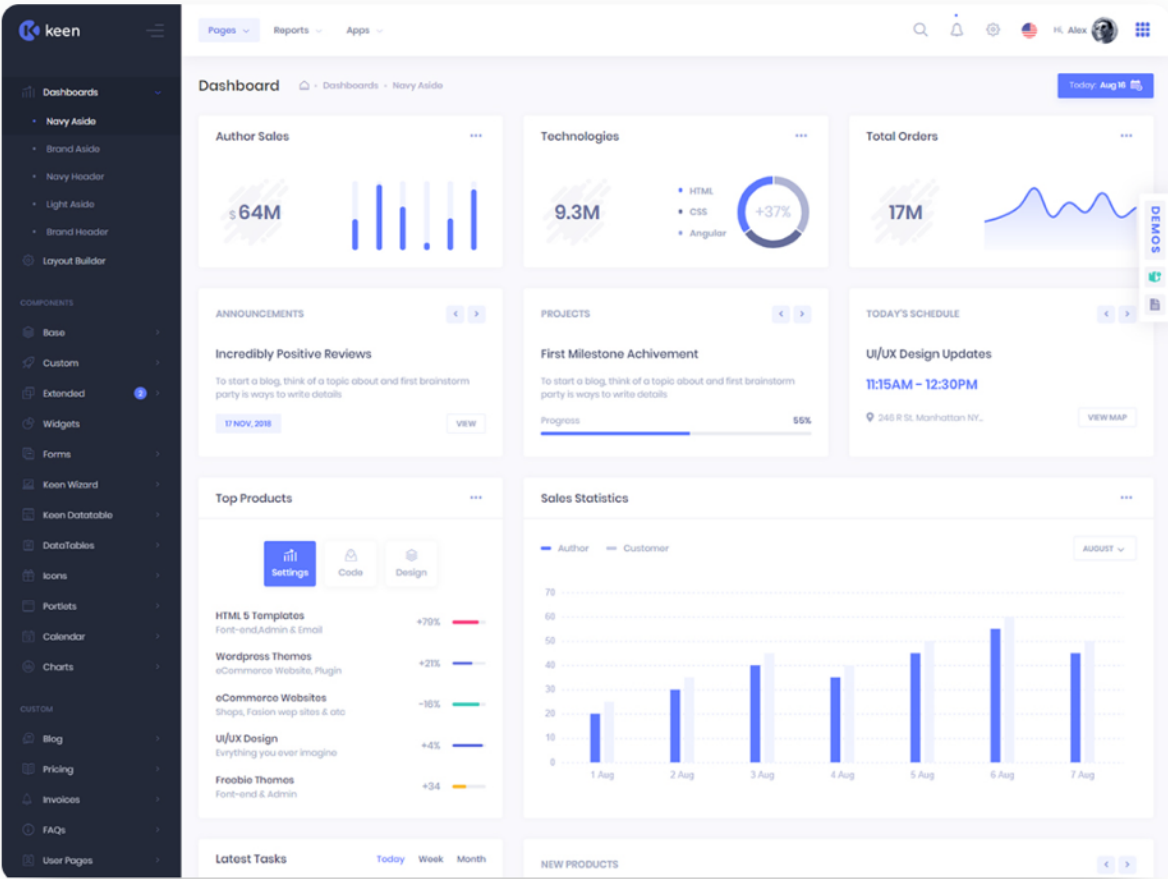
SearchSearch

JavaScript and Plug-ins

- Integrated into many frameworks
- Extend functionality
- Customize
- Don't reinvent the wheel



Themes



Other Advantages

- Popular
- Saves Time
- What Other Platforms Use
- Cross Browser
- Attract New Developers

Bootstrap Site Example

Bootstrap Expo

Beautiful and inspiring uses of
Bootstrap, curated by @mdo.

Home
About
Resources

Suggest a site
RSS feed
Twitter



Super Mario Odyssey

March 26, 2019

<https://expo.getbootstrap.com/>

Resources

- <http://getbootstrap.com/>
- <https://bootswatch.com/>
- <https://wrapbootstrap.com>
- <http://www.w3schools.com/bootstrap/>
- <http://startbootstrap.com/bootstrap-resources/>

Development Tools



PHP IDEs



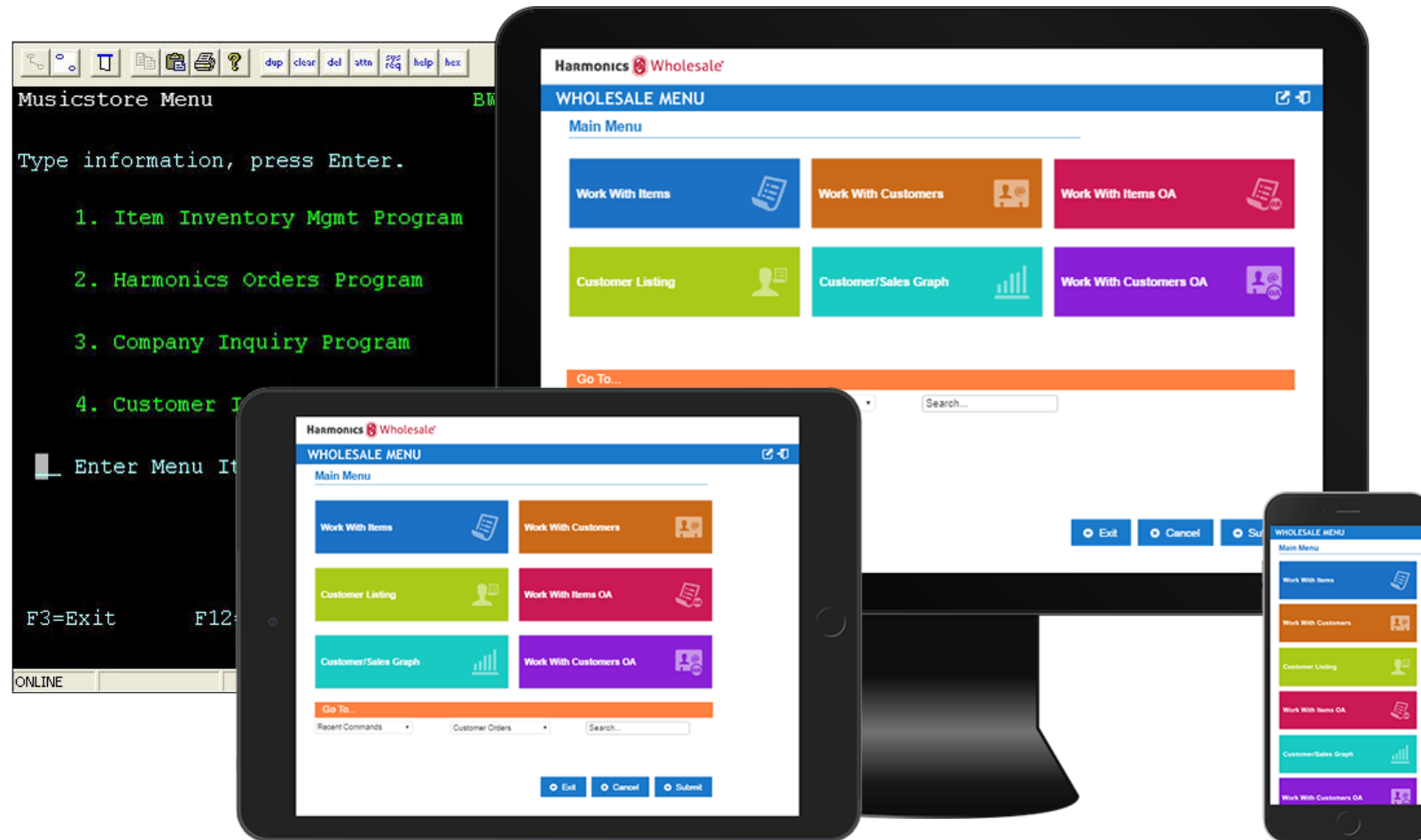
Visual Studio Code



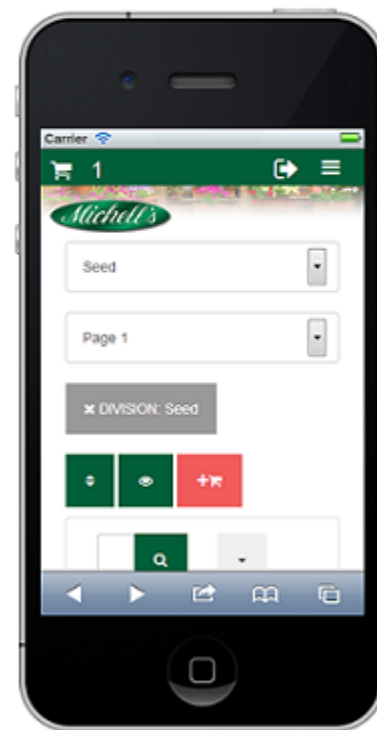
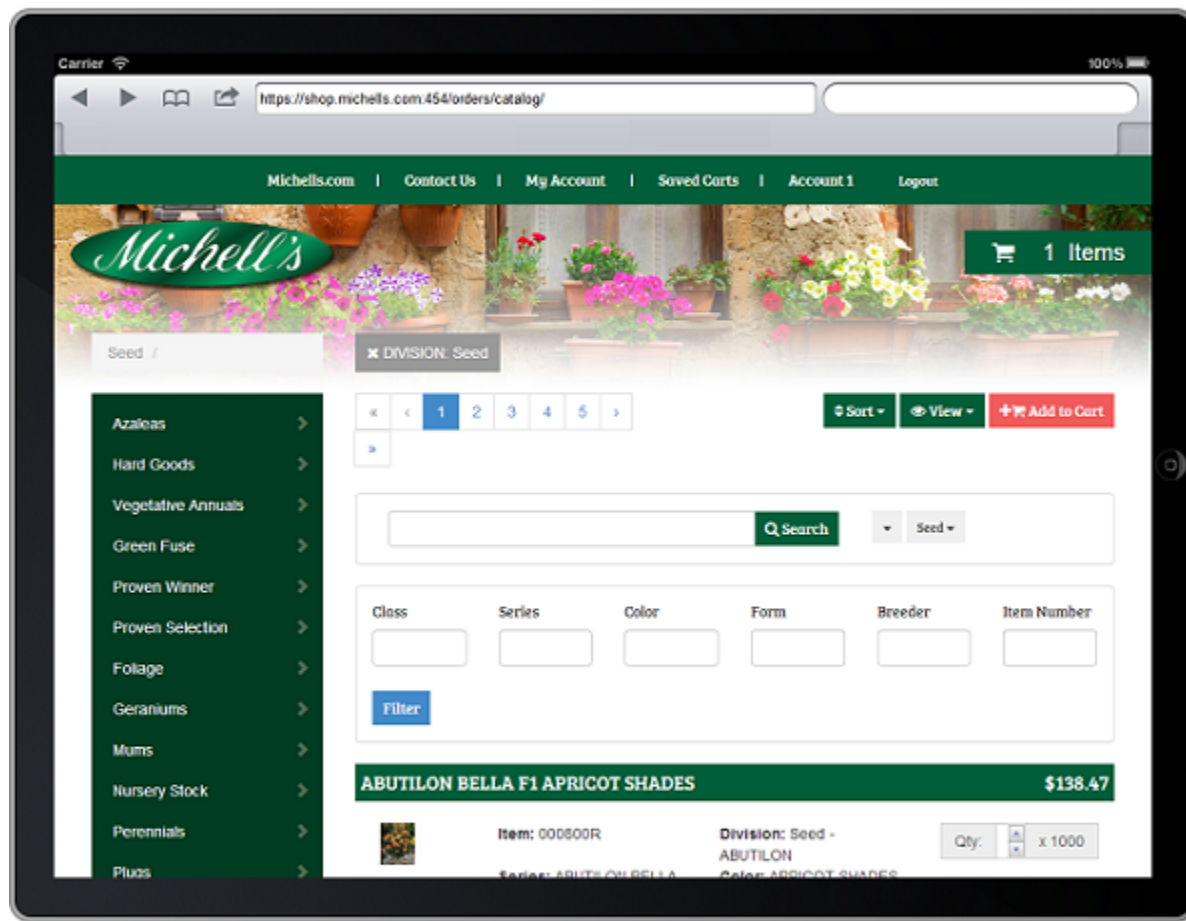
zend®studio



Not just Net-New Development




eCommerce



B2B on IBM i

Check out our Bangers Bargains! Expires in 351 days 10 hours 6 min



2 pending notifications

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(2)

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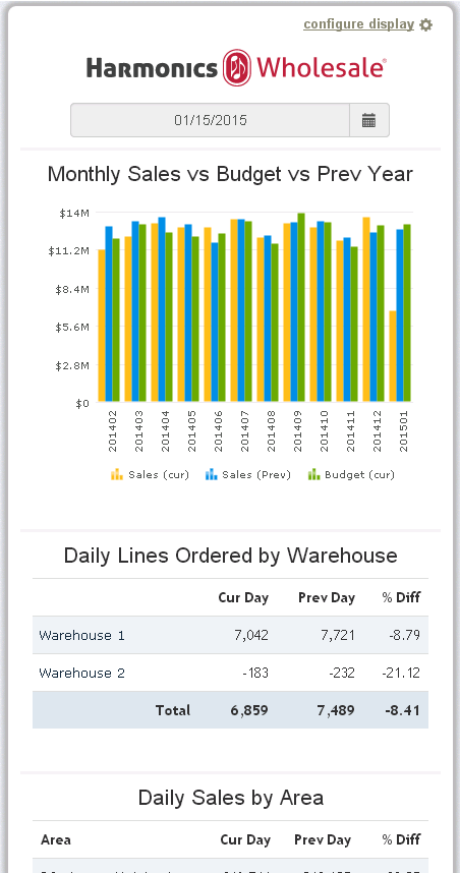
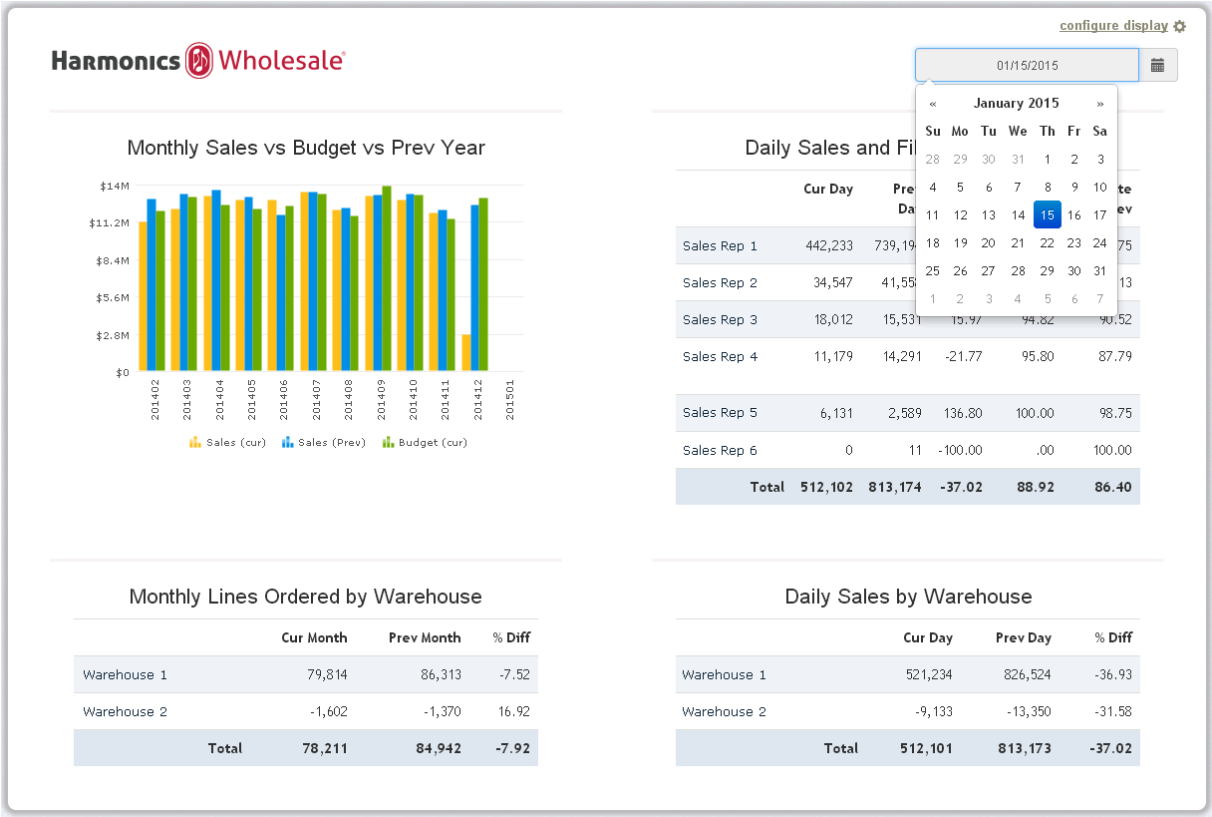
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Dashboard on IBM i





Questions?

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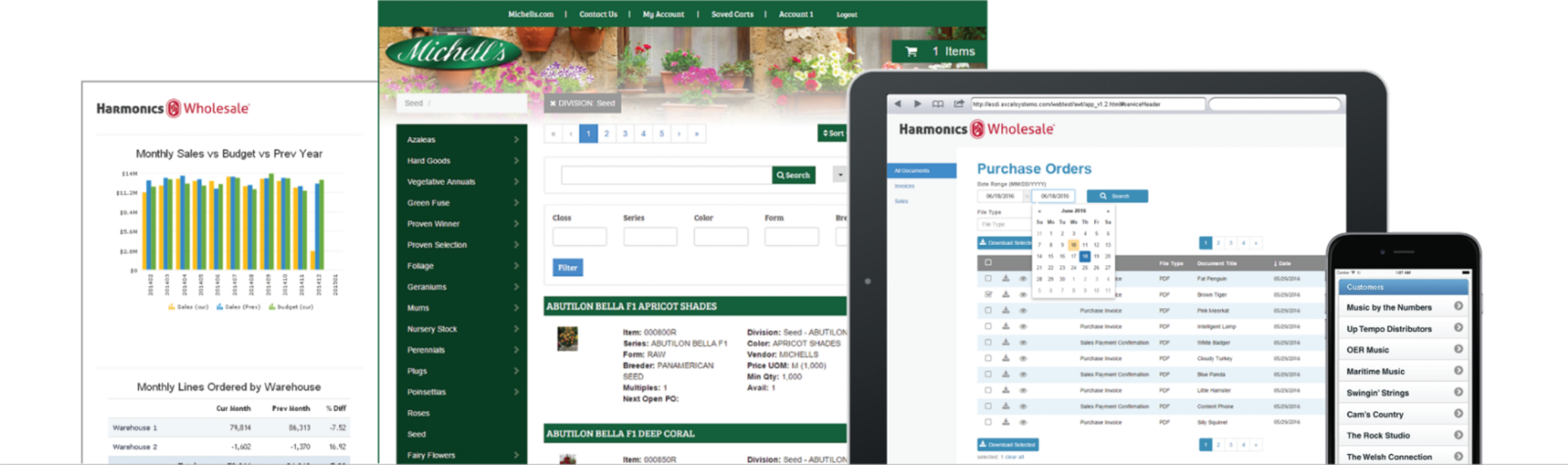
About Fresche

Through the power of
automated tools and
experienced professionals,

Fresche delivers innovative solutions that
bring our clients the best, boldest solutions
to help fuel transformation and growth.



Rapid Responsive Development



WebSmart Benefits

- See results in minutes
- Reduce web development learning curve
- Leverage existing RPG/COBOL code and resources
- Attract new developers
- Strategic web applications

Templates Create Programs in Minutes

